

Washington State Airport Pavement Management Program Update

The Washington Department of Transportation (WSDOT) Aviation is currently in the process of updating the statewide pavement management program. The program update was initiated in January of 2005 and will be completed by June of 2006.

The principal objective for developing a statewide pavement management program is to assess the relative condition of pavements for selected Washington airports in the Washington State Airport System Plan (WSASP) and Federal Aviation Administration (FAA) National Plan of Integrated Airport Systems (NPIAS) with the exception of a few primary airport facilities which have the technical capability and staff to manage their respective pavement programs. The program is to serve as a tool in identifying system needs, state programming decisions for federal grant aid, Local Airport Aid program, legislative decision making, and the planning needs of local jurisdictions. Secondly, the program should develop accurate pavement inventories and identify necessary maintenance, repair, rehabilitation and reconstruction projects.

The Scope of Work for the Statewide Pavement Program Update is as follows:

PAVEMENT MANAGEMENT PROGRAM UPDATE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION AVIATION

Applied Pavement Technology, Inc. (APTech), with assistance from CH2M HILL and CivilTech, will update the Washington State Department of Transportation (WSDOT) Aviation's Airport Pavement Management Program (APMP). The airports included in this project are listed in Exhibit A. This exhibit identifies which airports were included in the previous 1999/2000 APMP project, airports to be added to the 2004/2005 APMP and airports that conduct their own pavement evaluation programs.

The scope of work is divided into the following tasks:

Scope Of Work Definitions

Program Overview

TASK

Task 1. System Pavement Inventory and Data Collection

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- Task 1.2 Records Review

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- Task 1.4 Visual Condition Survey

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- Task 1.4.3 Photo Record

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- Task 4.1 Pavement Management Manual
- Task 4.2 Pavement Management Report for Individual Airports
- Task 4.3 Statewide Pavement Management Report
- Task 4.4 Puget Sound Region Airports Report

Task 5. Public Outreach on Study Findings**Task 6. Installation and Demonstration of Micro PAVER****Task 7. Project Management**

- Task 7.1 Team Meetings
- Task 7.2 Monthly Invoices

Exhibit A. Project Airports**Exhibit B. Cost Assumptions**

SCOPE OF WORK DEFINITIONS

APMP – Airport Pavement Management Program

AIP – References the Federal Aviation Administration's Airport Improvement Program

ASTM – American Society for Testing and Material

WSDOT - Washington State Department of Transportation Aviation

CIP – Capital Improvement Plan

Consultant - References the prime consultant on the project (Applied Pavement Technology, Inc. (APTech))

Consultant Team - Applied Pavement Technology, Inc. (APTech), CH2M HILL and CivilTech

FAA - Federal Aviation Administration Seattle Airports District Office

Project Team - References the team members within the WSDOT, FAA and the Consultant

NPIAS –National Plan of Integrated Airport Systems

WSASP –Washington State Airport System Plan

PCI –Pavement Condition Index

PMMP –Pavement Maintenance Management Program

- The coordination of state and federal funding for the Scope of Work is predicated on the receipt of federal funds.

PROGRAM OVERVIEW

The principal objective for developing a statewide pavement management program is to assess the relative condition of pavements for selected Washington airports in the Washington State Airport System Plan (WSASP) and Federal Aviation Administration (FAA) National Plan of Integrated Airport Systems (NPIAS) with the exception of a few primary airport facilities which have the technical capability and staff to manage their respective pavement programs. The program is to serve as a tool in identifying system needs, state programming decisions for federal grant aid, Local Airport Aid program, legislative decision making, and the planning needs of local jurisdictions. Secondly, the program should develop accurate pavement inventories and identify necessary maintenance, repair, rehabilitation and reconstruction projects.

To assist in developing this Program, WSDOT uses Micro PAVER pavement maintenance management software. Micro PAVER uses the inspection results to efficiently identify pavements requiring maintenance and rehabilitation, reconstruction or repair. This information allows the user to assess overall pavement network condition, to prepare and forecast the budgets required to maintain the network at an acceptable condition level, and to identify required maintenance, rehabilitation, and reconstruction activities.

During the process of establishing an APMP for the State, certain information is compiled about the pavements at each included airport. The 1999-2000 APMP represents the baseline year in Washington State for most airports. This information includes, at a minimum: pavement location, pavement dimensions, pavement surface type, and last construction date. This information is collected so that each airport's pavements can be divided into manageable units, a process called network definition.

It is important to note that the role of the state, as an advocate to airports, is not to supplant the role of the airport sponsor. It is not the role of WSDOT to serve in an enforcement capacity nor is it the role of WSDOT to bring an airport into compliance with state or federal requirements. That role is reserved for the airport sponsor. The role of WSDOT is to identify the pavement needs and recommended process of preserving the pavements within the WSASP and NPIAS. The cities, counties and port districts provide the key policy and financial decisions necessary for preserving airport pavements in Washington State.

TASK 1. SYSTEM PAVEMENT INVENTORY AND DATA COLLECTION

Task 1.1 Kick-Off Meeting and Notification of Airports

A kickoff meeting will be held at the FAA's offices. During this meeting, the scope of work, deliverables, and schedule will be reviewed. The chain of communication to be followed will be discussed. The Consultant Team Applied Pavement Technology, Inc. (APTech), CH2M HILL, CivilTech, WSDOT and FAA will attend this meeting.

During Task 1.1, the Consultant Team will prepare letters for WSDOT to distribute to the project airports (based on level of inspection and analysis listed in Exhibit A) describing the project, introducing the project team members, and advising the airports of the impending pavement inspections. In addition, a copy of the airport's 2000 work history map or other appropriate maps as available will be enclosed with the letter and the airport will be requested to mark up any changes that have occurred in the past 4 years on this map and return it.

Product: Notification letter to distribute to the project airports describing the project and introducing the project team members.

Task 1.2 Records Review

Task 1.2.1 Collection of Work History Information

During the records review, available information pertaining to the pavement construction, rehabilitation, and maintenance history of the airports will be gathered. This information will be obtained by reviewing the most recent airport layout plan or drawing for each airport (where available) and the previous pavement condition reports, as well as by talking with WSDOT, the FAA, local airport sponsors, and Consultant Team. It is anticipated that visits to both WSDOT and FAA offices will be made during this task.

The Consultant Team will provide WSDOT/FAA with a list of data that was identified as unavailable and CH2M HILL will meet with WSDOT/FAA to discuss how to address any missing data identified; APTech will participate in this meeting via telephone.

Product: The Consultant Team will provide WSDOT/FAA with an Excel spreadsheet that lists the sections where the FAA Form 5320-1 does not match the findings of the Consultant Team's records review findings. This spreadsheet will identify the sections as well as state how the 5320-1 information differs from the Consultant's findings.

Task 1.2.2 Work History Maps

The existing electronic work history maps prepared during the 2000 APMP will be updated as necessary. For airports not included in the 2000 APMP (see Exhibit A), new drawings will be prepared. The maps will identify all pavement boundaries (runway, taxiway, and apron), dimensions, cross-sections, dates of construction or most recent major rehabilitation, and surface type. The map format established during the 2000 APMP will be used.

Task 1.3 Network Definition

Task 1.3.1 New Network Definition Maps for new identified airports.

Using the information collected during Task 1.2, the pavement areas at airports not included in the 2000 APMP will be divided into branches, sections, and sample units in accordance with the American Society for Testing and Material's (ASTM) Standard D5340, *Standard Test Method for Airport Pavement Condition Index Surveys* and the FAA's Advisory Circular 150/5380-6A, *Guidelines and Procedures for Maintenance of Airport Pavements*. New airport network definition map drawings of identified airports will be prepared showing all branch, section, and sample unit boundaries. The map format established during the 2000 APMP will be used.

Task 1.3.2 Network Definition Maps for existing airports identified under 2000 APMP

The existing electronic network definition maps prepared during the 2000 APMP will be updated as necessary to include runway, taxiway or apron extensions or additions. New extensions or additions will be divided into branches, sections, and sample units in accordance with the ASTM Standard D5340, *Standard Test Method for Airport Pavement Condition Index Surveys* and the FAA's Advisory Circular 150/5380-6A, *Guidelines and Procedures for Maintenance of Airport Pavements*. All branch, section, and sample unit boundaries will be shown on the airport network definition maps. The map format established during the 2000 APMP will be used.

Task 1.4 Visual Condition Survey

Task 1.4.1 PCI Inspections

The runways, taxiways, and aprons at the project airports will be evaluated using the Pavement Condition Index (PCI) procedure as defined in FAA AC 150/5380-6A and ASTM D5340. Prior to conducting the PCI inspections, a field schedule will be developed to ensure timeliness of the data collection. The Consultant Team will provide WSDOT and FAA with advance notification of the schedule. The Consultant Team will contact each airport prior to the airport inspections.

Two person crews will be used for the inspection. Each crew will be led by an experienced inspector. The sampling rate shown in Table 1 will be used for the inspection. This is the same sampling rate used during the 2000 PCI inspections.

Table 1. Inspection sampling rate.

Flexible Pavements		Rigid Pavements			
N	n	N	n	N	n
1 – 2	all	1 – 2	all	20 – 27	9
3 – 6	3	3 – 4	3	28 – 38	10
7 – 13	4	5 – 6	4	39 – 58	11
14 – 38	5	7 – 8	5	59 – 104	12
> 38	6	9 – 11	6	105 – 313	13
		12 – 14	7	> 313	14
		15 – 19	8		

N is the number of sample units in the pavement section.

n is the number of sample units to be surveyed.

Task 1.4.2 PCI Maps

The Consultant Team will develop a pavement condition map for each airport inspected (see Exhibit A). The map format established during the 2000 APMP will be used. However, the Consultant Team will work with WSDOT and FAA to determine the pavement condition rating scale, since many agencies have decided in recent years to modify the original “Excellent, Very Good, Good, Fair, Poor, Very Poor, and Failed” categories to better reflect pavement needs.

Product: Pavement condition map for each airport inspected using format established during the 2000 APMP.

Task 1.4.3 Photo Record

During the PCI surveys, the Consultant Team will maintain a photo log. At a minimum, one photograph per branch will be taken except in T-hangar areas where a reduced number of photographs will be taken. The photographs will be digital and when possible will use a prop such as a ruler to demonstrate the scale of the photo. The photographs will be labeled and stored on a standard CD medium.

Product: Photo log – A minimum of one digital photograph per branch inspected. The photographs are to be labeled and stored on a standard CD medium. At the completion of the project a copy of the database is to be provided to WSDOT and FAA.

TASK 2. MICRO PAVER SOFTWARE IMPLEMENTATION

Task 2.1 Micro PAVER Database Update

WSDOT is using the Micro PAVER pavement management software and has a Micro PAVER database established for the airports included in the 2000 study. During this project, the existing database will be converted to the most recent version of Micro PAVER (currently 5.2) and updated with the information collected during this project. Representative photographs taken during the pavement inspections will be linked to the Micro PAVER database.

Product: Existing WSDOT Micro PAVER pavement management software is to be converted to the most recent version of Micro PAVER (currently 5.2) and shall be updated with the information collected during this project. Representative photographs taken during the pavement inspections will be linked to the Micro PAVER database. At the completion of the project a copy of the database will be provided to WSDOT and FAA.

Task 2.2 System Parameters

Micro PAVER will be calibrated to more accurately reflect the conditions and policies under which Washington public use airports operate. The configuration will include developing pavement performance models, establishing prioritization guidelines, developing maintenance and rehabilitation policies, and entering unit cost information for maintenance and rehabilitation actions. This information will be specific to Washington airports, which will permit WSDOT to use the program to perform realistic analysis and generate realistic capital budgeting output. In addition, any user fields that WSDOT and FAA would like established will be identified and entered.

A meeting at the FAA office will be held during this task. APTECH and CH2M HILL will attend this meeting.

Task 2.3 Other Database Updates

Product: The Consultant Team will update and integrate the pavement conditions assessment with average PCI values as well as update the Capital Improvement Projects (CIP) listing in the WSASP inventory SQL server database. The overall “average” PCI values will be calculated and input for each runway, taxiway and apron. The CIP listing will be imported into the WSASP inventory SQL server database as well as the FAA’s SOAR database via Excel spreadsheet. The WSDOT and FAA will identify the column formats appropriate for each Excel spreadsheet for each database import. Once the average runway condition values have been supplied by the consultant and the FAA has identified which value will be imported, the WSDOT will update the FAA’s Form 5010 Airport Master Records.

TASK 3. DATA ANALYSIS

Task 3.1 PCI Data Analysis

Three aspects of the pavement condition data will be analyzed: the PCI, the type of distress, and the rate of deterioration.

PCI. The PCI for each inspected sample unit will be calculated and section PCI values will be extrapolated based upon the sample unit information.

Type of Distress. The types of distress identified during the surveys will also be analyzed. The types of distress present provide insight into the cause of the pavement deterioration.

Distress types are characterized as load-related (such as alligator cracking), climate-related (such as weathering and raveling), and materials-related (such as durability cracking). Understanding the cause of distress allows a treatment to be selected that corrects the cause of deterioration.

Pavement Deterioration Rate. The deterioration rate helps identify those pavement sections that are failing faster than normal. Sections exhibiting higher than normal deterioration rates warrant close monitoring and further evaluation.

Task 3.2 Maintenance, Rehabilitation and Reconstruction Needs Identification

The collected data will be used to perform a statewide needs assessment and to identify localized maintenance, global maintenance, and major M&R needs for the next 6 years. These categories of repair are defined as follows?

- Localized preventative maintenance is a preventive maintenance action that is applied only to a distressed area, such as crack sealing or patching;
- Global preventive maintenance is a preventive maintenance action that is applied to an entire section, such as a surface treatment; and
- Major M&R consists of major work (such as an overlay or reconstruction).

The global preventive maintenance and major M&R recommendations will be made for the 6-year period of the analysis. Localized preventive maintenance recommendations will be made for the first year of the analysis only.

Task 3.3 Project Development for Individual Airports

Task 3.3.1 Project Development

The Consultant Team will use the list of needs developed during Task 3.2 and group these needs into logical projects. For example, it is possible that the initial needs assessment will show that one section of a runway is triggered for rehabilitation in one year and another section on the same runway triggered for rehabilitation in another year. It is probable that for economical and operational reasons these should be combined into a single project. The cost associated with these “grouped” projects will also be prepared.

An unlimited budget will be used during the development of the individual airport projects; however, WSDOT and the FAA will establish project priorities based on the priority levels of the different pavement areas provided.

A meeting at the FAA office will be held to discuss the preliminary recommendations resulting from this task. APTECH and CH2M HILL will attend the meeting.

Task 3.3.2 Work Plan Map

A map and text summary analysis with graphics showing the 6 years of the recommended program will be prepared for each airport inspected (see Exhibit A). The map format established during the 2000 APMP will be used.

Task 3.4 Project Prioritization for Statewide Airport Pavement Management Program

The Consultant Team, in close conjunction with WSDOT and the FAA, will establish a 6-year statewide system plan of pavement projects, identify project assumptions, and establish project priorities. Project priorities will be established on the priority levels of the different pavement areas and the individual airports provided by WSDOT and the FAA. A constrained budget provided by WSDOT and the FAA will be used during this analysis.

A meeting at the FAA office will be held to discuss the statewide prioritization process. APTEch and CH2M HILL will attend the meeting.

Task 3.5 Statewide Budget Analysis

The Consultant Team will use Micro PAVER to estimate the impact on overall condition of not more than five (5) budget scenarios, including an unlimited budget and a no funding budget, for a six-year analysis period. In addition to predicting the overall system PCI for each year of each analysis scenario, the estimated cost of major rehabilitation and surface treatments will be determined as will be the amount of backlogged projects not funded. The resulting information will be included in the Statewide Pavement Management Report.

TASK 4. PAVEMENT MANAGEMENT PROGRAM COMPENDIUM

Task 4.1 Pavement Management Manual

The Consultant Team will develop a generic pavement management workbook manual. This workbook will consist of the following three sections:

1. Basics of Pavement Condition Index (PCI): this section will describe what a PCI is, how it is measured, what it means, and how PCI information is used. It will discuss how PCI information is used in the pavement management process and the development and implementation of a pavement maintenance and rehabilitation program. Further, it will discuss the impact of deferring needed pavement repair. This section will be written in straightforward, easy to understand language that the layperson can follow.

2. Monthly Drive by Inspections: this section will describe what an airport needs to do to remain in compliance with Public Law 103-305, and provide sample forms for them to use in their

inspections. Further, it will present in simple terms (with accompanying photographs) those distress types/severity combinations that warrant immediate action and/or notification of WSDOT and the FAA of conditions.

3. Using the Pavement Management Information Provided by the State: this section will describe how the airport sponsor should plan for pavement maintenance and for CIP projects. It will present a sample airport and describe the process using that sample airport to illustrate the steps that need to be undertaken.

A draft of an individual workbook manual template will be provided for WSDOT/FAA review and comment. A teleconference will be held to discuss and review comments.

Product: Two hundred (200) copies of the pavement management workbook manual will be delivered, as well as electronic .pdf files on a CD medium suitable for posting on WSDOT's website will be provided. WSDOT will be responsible for distributing the Pavement Management Manual.

Task 4.2 Pavement Management Report for Individual Airports

The Consultant Team will develop and provide each airport sponsor with a report that describes the study purpose, data collected, a documentation of the pavement condition, and an identification of a recommended pavement maintenance, rehabilitation, and reconstruction plan. These reports will contain maps and photographs. In addition, these reports will contain an electronic copy of each airport's Micro PAVER database as well as a form that can be used for conducting the monthly drive-by inspections required by Public Law 103-305.

A draft of an individual report template will be provided for WSDOT/FAA review and comment. A teleconference will be held to discuss the review comments.

Product: Four (4) copies of each final individual airport pavement management report will be delivered to WSDOT (2), FAA and airport sponsor. WSDOT will be responsible for delivering the individual airport report to the sponsor.

Task 4.3 Statewide Pavement Management Report

The Statewide Pavement Management Program Report will contain a project overview and will present the results of the statewide analysis. The analysis will include a summary analysis of the Statewide Pavement Management Program by NPIAS and Non NPIAS airports. No detailed maps or detailed inspection data will be presented in this report; that information will be provided in the individual airport reports.

A draft of the statewide report will be provided for WSDOT/FAA review and comment. A teleconference will be held to discuss the review comments.

Product: Twenty (20) copies of the Statewide Pavement Management Program Report will be delivered.

Task 4.4 Puget Sound Region Airports Report

The Consultant Team will provide a stand alone report documenting the data results and analysis for those 26 public use airports included within the Puget Sound Regional Council's jurisdiction (i.e., King, Kitsap, Pierce, and Snohomish counties). While PSRC's jurisdiction includes two military airfields (McChord AFB and Gray Army Airfield at Fort Lewis), obtaining their pavement data is beyond the scope of this project. No new data collection or pavement analysis will be required for the Puget Sound Region airports to fulfill this task. It will only be a separate compendium of the work already prepared as part of the scope of work for this statewide project.

Product: A separate, stand alone, executive summary documenting the data results and pavement analysis for the 26 public-use airports within PSRC's jurisdiction. This product will include airport-specific pavement analysis results and summary results for the PSRC region, consistent with the level of detail undertaken in the overall study.

TASK 5. PUBLIC OUTREACH ON STUDY FINDINGS

The Consultant Team will conduct Three (3) public outreach-meeting workshops on the pavement management program study findings across the State of Washington and one public outreach-meeting workshop at the Washington Airport Management Association (WAMA) conference. The pavement management manual developed during this project will be used during these outreach-meeting workshops.

Product: Three (3) public outreach-meeting workshops on the pavement management program study findings across the State of Washington and one (1) at the Washington Airport Management Association conference.

TASK 6. INSTALLATION AND DEMONSTRATION OF MICRO PAVER

Product: The Consultant Team will install the updated Micro PAVER database on WSDOT and FAA computers, and will provide a comprehensive 2-1/2 day demonstration of the capabilities of the program.

TASK 7. PROJECT MANAGEMENT

Task 7.1 Team Meetings

The Consultant Team will attend timely meetings with WSDOT and FAA. In addition to the meetings identified in this scope of work, monthly teleconferences throughout the duration of the project will be held with the project team. During these project team meetings, the Consultant Team will update the team members about the status of key project issues and schedule. The Consultant Team will deliver meeting minutes within 10 days of each project meeting.

Task 7.2 Monthly Invoices

The Consultant Team will submit a monthly invoice providing a detailed overview of the work accomplished during the billing period, work to date, issues resolved, percentages of work complete, and work remaining on the project. This invoice will also provide detailed information documenting the amounts paid to MBE/WBE firms and the work accomplished during the billing period and the work accomplished to date by those firms.

As part of the monthly invoice, the Consultant Team will provide a table summarizing a breakdown of costs for work during the billing period, work to date, and percentages complete in comparison to the approved budget according to the task and subtask.

Invoices and accounting procedures shall be consistent with WSDOT accounting guidelines.

EXHIBIT A. PROJECT AIRPORTS

	City	Airport	LocID	Curr Role	Included In 2000 APMP	NPIAS	Non NPIAS	Comments
1	Bellingham	Bellingham International	BLI	PR	No	X		Rehab Terminal Apron '05
1	Pasco	Tri - Cities	PSC	PR	No	X		Rehab RW 30 '04 (Just Finished PCI Study)
1	Seattle	Seattle - Tacoma International	SEA	PR	No	X		3rd RW '04
1	Spokane	Spokane International	GEG	PR	No	X		Construct GA Apron, Rehab RW 3/21'04, Construct TW C Extension '05
2	Moses Lake	Grant County	MWH	CS	No	X		Rehab RW 14L/32R '04, Construct Parallel TW RW 32R '05
2	Walla Walla	Walla Walla Regional	ALW	PR	No	X		Rehab GA Apron '05
2	Wenatchee	Pangborn Memorial	EAT	PR	No	X		
2	Yakima	Yakima Air Terminal	YKM	PR	No	X		Two Aprons Built in '04
3	Blaine	Blaine Municipal	4W6	GA	Yes	X		Master Plan
3	Bremerton	Bremerton National	PWT	GA	Yes	X		
3	Burlington / Mount Vernon	Skagit Regional / Bay View	BVS	GA	Yes	X		
3	Camas / Washougal	Grove Field	1W1	GA	Yes	X		
3	Cashmere	Cashmere - Dryden	8S2	GA	Yes	X		
3	Chehalis	Chehalis - Centralia	CLS	GA	Yes	X		Additional New Pavement - Taxilane parallel to Rwy 16/34
3	Chelan	Chelan Municipal	S10	GA	Yes	X		
3	Chewelah	Sand Canyon	1S9	GA	Yes		X	
3	Cle Elum	De Vere Field	2W1	GA	Yes		X	
3	Colville	Colville Municipal	63S	GA	Yes	X		
3	Concrete	Concrete Municipal	3W5	GA	Yes		X	
3	Darrington	Darrington Municipal	1S2	GA	Yes		X	
3	Davenport	Davenport	68S	GA	Yes	X		
3	Deer Park	Deer Park	DEW	GA	Yes	X		Maintenance Only
3	Eastsound	Orcas Island	ORS	GA	Yes	X		
3	Eatonville	Swanson	2W3	GA	Yes		X	
3	Forks	Forks Municipal	S18	GA	Yes	X		
3	Forks	Quillayute	UIL	GA	Yes	X		
3	Friday Harbor	Friday Harbor	FHR	PR	Yes	X		
3	Goldendale	Goldendale - Hornibrook Field	S20	GA	Yes		X	
3	Hoquiam	Bowerman	HQM	GA	Yes	X		
3	Ione	Ione Municipal	S23	GA	Yes	X		
3	Kelso	Kelso - Longview	KLS	GA	Yes	X		
3	Kennewick	Vista Field	S98	GA	Yes		X	
3	Kent	Crest Airpark	S36	GA	Yes		X	
3	Langley	Whidbey Air Park	W10	GA	Yes	X		
3	Lopez	Lopez Island	S31	CM	Yes	X		

3	Lynden	Lynden Municipal	38W	GA	Yes		X	
3	Mansfield	Mansfield	8W3	GA	Yes		X	
3	Mattawa	Desert Aire	M94	GA	Yes		X	
3	Monroe	Firstair Field	W16	GA	Yes		X	
3	Morton	Strom Field	39P	GA	Yes		X	
3	Moses Lake	Moses Lake Municipal	W20	GA	Yes		X	
3	Ocean Shores	Ocean Shores Municipal	W04	GA	Yes	X		
3	Odessa	Odessa Municipal	43D	GA	Yes	X		
3	Okanogan	Okanogan Legion	S35	GA	Yes		X	Slurry Seal Runway, Taxiway & Ramp '04
3	Olympia	Olympia	OLM	CS	Yes	X		
3	Omak	Omak	OMK	GA	Yes	X		
3	Oroville	Dorothy Scott	0S7	GA	Yes	X		
3	Othello	Othello Municipal	S70	GA	Yes	X		
3	Packwood	Packwood	55S	GA	Yes	X		
3	Port Angeles	Sekiu	11S	GA	Yes		X	
3	Port Townsend	Jefferson County International	0S9	GA	Yes	X		Construct Taxilanes '05 - All New Additional Pavement
3	Prosser	Prosser	S40	GA	Yes	X		
3	Puyallup	Pierce County - Thun Field	1S0	GA	Yes	X		
3	Republic	Ferry County	R49	GA	Yes		X	
3	Richland	Richland	RLD	GA	Yes	X		Taxilane '04 - New Additional Pavement
3	Ritzville	Pru Field	33S	GA	Yes	X		
3	Sequim	Sequim Valley	W28	GA	Yes		X	
3	Spanaway	Spanaway	S44	GA	Yes		X	
3	Spokane	Felts Field	SFF	RL	Yes	X		
3	Spokane	Mead Flying Service	70S	GA	Yes		X	
3	Sunnyside	Sunnyside Municipal	1S5	GA	Yes	X		
3	Tacoma	Tacoma Narrows	TIW	GA	Yes	X		
3	Tekoa	Willard Field	73S	GA	Yes		X	
3	Toledo	Toledo - Winlock Ed Carlson Memorial Field	TDO	GA	Yes	X		
3	Tonasket	Tonasket Municipal	W01	GA	Yes		X	
3	Twisp	Twisp Municipal	2S0	GA	Yes		X	
3	Vancouver	Evergreen Field	59S	GA	Yes	X		
3	Vancouver	Pearson Airpark	VUO	GA	Yes	X		
3	Warden	New Warden	2S4	GA	Yes		X	
3	Waterville	Waterville	2S5	GA	Yes		X	
3	Westport	Westport	14S	GA	Yes		X	
3	Wilbur	Wilbur	2S8	GA	Yes	X		
3	Winthrop	Methow Valley State	S52	GA	Yes	X		RW Rehab Fog Seal - Fall 2004
4	Anacortes	Anacortes	74S	GA	No	X		
4	Elma	Elma Municipal	4WB	GA	No		X	
4	Greenwater	Ranger Creek State	21W	GA	No		X	

4	McKenna / Yelm	Western Airpark	92W	GA	No		X	
4	Oak Harbor	Wes Lupien	76S	GA	No		X	
4	Pullman / Moscow, ID	Pullman / Moscow Regional	PUW	PR	No	X		Rehab RW '04, Rehab GA Apron '05
4	Snohomish	Harvey Field	S43	RL	No	X		
4	Walla Walla / College Place	Martin Airfield	S95	GA	No		X	
4	Wilson Creek	Wilson Creek	5W1	GA	No		X	
4	Woodland	Woodland State	W27	GA	No		X	
5	Arlington	Arlington Municipal	AWO	GA	Yes	X		Const. New TW's B & E and Run Up Aprons '05 - NonEligible (RWY 11/29 Only)
5	Auburn	Auburn Municipal	S50	RL	Yes	X		Reconstruct & Overlay Runway '04
5	Brewster	Anderson Field	S97	GA	Yes	X		Pavement Overlay '05 (All Pavements - No Need to Inspect)
5	Cle Elum	Cle Elum Municipal	S93	GA	Yes	X		Failed Pavement - No Need to Inspect
5	Colfax	Port of Whitman Business Air Center	S94	GA	Yes	X		Do Not Inspect Parallel and Connectors To The RW
5	Electric City	Grand Coulee Dam	3W7	GA	Yes	X		Pavement Overlay '05 (All Pavements - No Need to Inspect)
5	Ellensburg	Bowers Field	ELN	GA	Yes	X		Crosswind RW Not Eligible
5	Ephrata	Ephrata Municipal	EPH	GA	Yes	X		Reconstructed RW 11/29 & Connect TW Completed '04
5	Everett	Snohomish County (Paine Field)	PAE	RL	Yes	X		Term. Apron Exp. '05 (Near New Tower - Don't Exclude)
5	Ilwaco	Port of Ilwaco	7W1	GA	Yes		X	Runway Overlay - 2004/2005 - Failed - No Inspection
5	Lind	Lind Municipal	0S0	GA	Yes		X	Overlay Apron, Taxiways & Tie-downs - 2004/2005 - Failed - No Need to Inspect
5	Port Angeles	William R Fairchild International	CLM	PR	Yes	X		Construct Taxilanes '04
5	Quincy	Quincy Municipal	80T	GA	Yes		X	Runway Overlay and Other Pavements in '04 - Check with Airport
5	Renton	Renton Municipal	RNT	RL	Yes	X		Taxiways '04 - Master Plan Update '05
5	Rosalia	Rosalia Municipal	72S	GA	Yes	X		Failed Pavement - No Need to Inspect
5	Seattle	Boeing Field / King County International	BFI	PR	Yes	X		TW B9 & TW A11 '04, Rehab Runway '05
5	Shelton	Sanderson Field	SHN	GA	Yes	X		1/3 Ramp Overlay '05
5	South Bend / Raymond	Willapa Harbor	2S9	GA	Yes		X	Overlay Runway, Taxiway & Ramp - 2004/2005 - No Need to Inspect
								PRIORITY - Undertaking ALP Update - MALP (WSDOT/FAA)
1 No Inspection / No Analysis								PRIORITY - Undertaking Independent ALP or Master Plan
2 Limited Inspection / Analysis (Due to funding constraints)								
3 Inspection & Analysis (Included in 2000 APMP)								
4 Inspection & Analysis (Not included in 2000 APMP)								
5 No or Limited Inspection / Analysis (based on 2004/2005 Pavement Project)								
* NPIAS Airports with Ineligible Pavements - Cost Issue								
Arlington - Runway 11/29								
Ellensburg - Runway 7/25								
Moses Lake - Runway 14R								



Port Angeles - Crosswind Runway		
Walla Walla - Only Runway 2/20 and Parallel Taxiway Eligible for Inspection		
Wenatchee - Crosswind Runway		

EXHIBIT B. COST ASSUMPTIONS

1. WSDOT will provide the Consultant Team with electronic files of all maps and reports prepared during the 2000 study and base maps for new non-system airports.
2. For the Category 4 airports, the Consultant Team will verify pavement locations and dimensions to the extent possible using a handheld measuring wheel. No formal surveying of the pavement boundaries will be completed as part of this project.
3. Where available, WSDOT and FAA will provide the Consultant Team with electronic copies of the most recent airport layout plans or drawings for each airport. If unavailable in electronic form, WSDOT will provide them in hard copy form when available.
4. The Consultant Team will contact individual airports and consultants via telephone and email to gather work history information; however, site visits to each of the airports for the purpose of collecting work history information will not be made. A site visit to both the WSDOT offices and the FAA offices will be made during the records review process.
5. For airports included in the 2000 study (see Exhibit A), only pavement-related work collected since January 1, 2000 will be gathered. It will be assumed everything that is contained in the current Micro PAVER database is correct.
6. For any airports not included in the 2000 base study, the consultant will produce a scaled electronic drawing and of all pavement boundaries as well as the joint layout patterns for exposed Portland Cement Concrete pavements.
7. WSDOT will provide a contact list for the Team to use when notifying the airports of impending inspections. This list will provide a primary and a backup contact name as well as contact information numbers. Consultant to prepare letters for distribution by WSDOT. Tie to Exhibit A.
8. Statement that all pavements will be inspected during daylight hours to be included in the intro letter being prepared by Consultant.
9. Statement that at controlled facilities the airport will provide an escort for pavement inspections to be included in the intro letter being prepared by consultant.
10. No shoulders, blast pads, or roads will be inspected.
11. The inspection schedules will be developed to take advantage of geographical clustering taking in to consideration WSDOT's request to address priority level airports first.
12. WSDOT and FAA will actively participate in defining the maintenance, reconstruction and rehabilitation policies, critical PCI values, and other analysis parameters such as deterioration curves and inflation rate.
13. No more than 4 sets of maintenance policies and unit costs will be developed.
14. The FAA will provide all Micro PAVER databases that it has or wants incorporated into the State database.
15. The demonstration of Micro PAVER will be conducted at a facility provided by WSDOT or the FAA. An unlimited number of WSDOT staff, airport personnel, and FAA personnel can attend as long as WSDOT can provide a computer for every 2 people.
16. Micro PAVER (Version 5.2) software will be provided by consultant.
17. All products/reports will be provided on CD & hard copy.
18. WSDOT and FAA will be developing the priority levels of the pavement sections within each individual airport.
19. WSDOT and FAA will develop the priority levels of each airport within the airport system. This shall be done manually outside of the Micro PAVER program.